Claims:

1. (Currently Amended) A computer-implemented method to trade objects over a network, comprising:

receiving a buy order from a user for an object having at least four dimensions associated with said object, wherein the buy order includes a filter specified by the user that creates an arbitrarily-shaped region within the at least four dimensions;

receiving a message to modify said buy order while said buy order is pending, wherein said message is received from a party associated with the buy order;

modifying said buy order in accordance with said message;

encoding user-preferences associated with at least one of the buy order or one of a plurality of sell orders;

searching, in accordance with the filter specified by the user, an indexing tree that includes the plurality of sell orders for objects having said at least four dimensions in order to identify one or more sell orders that are within said arbitrarily-shaped region, wherein said searching of said indexing tree only identifies one or more sell orders that are within said arbitrarily-shaped region;

applying characteristics of one or more sell orders identified in the searching step and the user preferences, to a quality function that outputs one or more quality values for the one or more sell orders identified in the searching step to the user; and

attempting to match said buy order with one or more sell orders identified in the searching step in accordance with said one or more quality values.

2.-3. (Cancelled)

2

4. (Original) The method of claim 1, wherein said object is at least one of a group comprising goods and services.

5. (Original) The method of claim 1, wherein said object is a vehicle.

6. (Original) The method of claim 5, wherein said at least four dimensions for said vehicle comprises at least four dimensions from a group of dimensions comprising manufacturer, model, year, mileage, color, and accessories.

7. (Previously presented) The method of claim 1, further comprising:

receiving a message from said party to execute said buy order; and

automatically executing said buy order in accordance with said message.

8.-25. (Cancelled)

26. (Currently amended) A computer-implemented method to trade objects over a network, comprising:

receiving a sell order from a user for an object having at least four dimensions associated with said object, wherein the sell order includes a filter specified by the user that creates an arbitrarily-shaped region within the at least four dimensions;

receiving a message to modify said sell order while said sell order is pending, wherein said message is received from a party associated with the sell order;

modifying said sell order in accordance with said message;

encoding user-preferences associated with at least one of the sell order or one of a plurality of buy orders;

searching, in accordance with the filter specified by the user, an indexing tree that includes the plurality of buy orders for objects having said at least four dimensions in order to identify one or more buy orders that are within said arbitrarily-shaped region, wherein said searching of said indexing tree only identifies one or more buy orders that are within said arbitrarily-shaped region;

applying characteristics of one or more buy orders identified in the searching step and the user preferences, to a quality function that outputs one or more quality values for the one or more buy orders identified in the searching step to the user; and

attempting to match said sell order with one or more buy orders identified in the searching step in accordance with said one or more quality values.

27. (Cancelled)